REMARKS

Claim 25 has been amended to correct typographical errors. Claims 29 and 30 have been added. No new matter has been added by these amendments. Support for the above amendments may be found throughout the specification, and particularly at pages 4-7.

Claims 1-13 and 21-25 have been deemed unpatentable pursuant to 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,046,712 to Beller in view of U.S. Patent 6,522,312 to Ohshima and further in view of U.S. Patent 6,094,625 to Ralston Claims 14-20 have been deemed obvious over Beller in view of Ralston. Applicants respectfully request favorable consideration and allowance of the application.

Rejection Under 35 U.S.C. § 103(a)

Independent claim 1

Independent claim 1 is directed to a method for viewing data. The method includes the act of "automatically detecting one or more visual markers within the image through the use of pattern recognition. In response to automatically detecting the visual markers, data is selected from a database located on a memory storage. The data has "a predefined association with one of said objects associated with one of said visual markers."

The specification at page 4 describes an exemplary system which includes a wearable camera directed "towards one or more labeled objects within a field of view of the operator." One or more visual markers are detected by identifying a visual marker located within a field of view of the camera. Data associated with the object associated with the identified visual marker is selected from a database. The specification at page 4 describes that the databases

store "information and data associated with the visual markers and/or mapped locations of the visual markers." Accordingly, the system responds to objects that are within the field of view of that camera, and selects data stored in a database according to identifying a visual marker within the field of view of that camera.

Applicant respectfully submits that the Beller, Ohshima, and Ralston combination does not disclose or suggest the limitations of independent claim 1. First, in Beller, video data and audio information are transmitted to a remote system, where a remote human operator manually marks-up a video image, and re-transmits the marked-up video image back to the user where it is presented to the user in a head-mounted display. (Beller, col. 2, ll. 16-22, 39-51; col. 9, ll. 24-35). The user realigns and maintains his head in the realigned position where user's view matches the marked-up image. (Beller, col. 2, ll. 39-59; col. 8, ll. 38-67). Next, Ohshima relates to a system in which a CCD camera senses a marker to correct a signal of a magnetic sensor. (Ohshima, col. 12, ll. 1-8; col. 13, ll. 41-53).

Finally, Ralston relates to augmented vision system in which positions and attributes of real objects are stored in a database. (Ralston, Abstract). The operator's field of view is determined to generate images from database information related to the determined field of view of the operator. (Ralston, Abstract). In Ralston, a current position of the operator and a current head orientation of the operator are measured to determine a current field of view of the operator. Based on the determination of the current position and head orientation, a database is accessed. (Ralston, col. 3, ll. 29-40). The database contains "a predetermined layout of a plurality of points, lines, surfaces or other features." (Ralston, col. 4, ll. 16-17).

The points, lines surfaces, and other features have positions and attributes that have "already been determined in earlier work and stored as database information which is available to the operators." (Ralston, col. 8, ll. 12-15). Based on the current position and orientation, a virtual object is generated. Accordingly, information related to a virtual object is obtained from a database based on a determination of the operator's current position and head orientation. (Ralston, col. 13, ll. 54-57). The operator's field of view is augmented by the "virtual objects" that are generated based on the information contained in the database. (Ralston, col. 9, ll. 29-34). The "virtual objects" are not "real world objects," or visual markers, which are in the operator's field of view. (Ralston, col. 9, ll. 29-34)

Applicant submits that the Beller, Ohshima and Ralston combination would not lead one of ordinary skill in the art to the invention of claim 1, but instead relates to transmitting an image of a view point of a user to a remote operator where the image is marked up, and re-transmitted to the user. The orientation of the image may be corrected to the user's head position by sensing a marker. Finally, in the Beller, Ohshima and Ralston combination, current head position and orientation are determined to generate a virtual image from a database of predetermined position and attribute information.

Applicant respectfully submits that the combination of Beller, Ohshima and Ralston does not disclose or suggest selecting data from a database, where the data has "a predefined association with one of said objects associated with one of said visual markers." As recognized in the Office Action, Beller and Ohshima do not disclose or suggest selecting "from a database memory storage having a predefined association with the markers."

Applicant also respectfully submits that Ralston does not disclose or suggest selecting from a selecting data from a database, where the data has "a predefined association with one of said objects associated with one of said visual markers," as recited by claim 1.

As discussed, Ralston discloses detecting a geographic position and head orientation. From the position and orientation, a virtual object may be generated and displayed to the user. Ralston clearly defines the "virtual object" as being "generated by the rendering system and presented on a display." (Ralston, col. 9, ll. 32-34). The virtual objects "include representations of selected physical items and mathematical constructs, with associated attribute information." (Ralston, col. 9, ll. 34-36). Thus, the information stored in the Ralston database includes position information and information related to virtual objects. The database of Ralston, **does not include** information associated with **a detected real-world visual marker**, as recited by claim 1. Accordingly, Applicant respectfully submits that claim 1 would not have been obvious to one skilled in the art in light of the Beller, Ohshima and Ralston combination.

Independent claim 10

Independent claim 10 is directed to a method for coordinating the movement of human workers in a working environment. The method includes, detecting one or more visual markers, processing an image of the visual marker, and determining a unique identifier associated with the marker. The physical location is maintained on a database located on memory storage. The database stores "predefined associations of unique identifiers and locations of the visual markers." As discussed, the specification describes exemplary

systems including detecting a visual marker located within a field of view of the camera and selecting data associated the identified visual marker from a database. The data associated with the visual markers may be "mapped locations of the visual markers."

Applicant respectfully submits that the Beller, Ohshima, and Ralston combination does not disclose or suggest the limitations of independent claim 10. As discussed, the Beller, Ohshima and Ralston combination senses a marker to correct the image according to the user's head position. The Beller, Ohshima and Ralston combination includes a database of predetermined position and attribute information relating to selected real objects. The Beller, Ohshima and Ralston combination does not disclose or suggest selecting data from a database, where the data has "predefined associations of unique identifiers and locations of the visual markers."

As discussed, Ralston discloses accessing a database with position information to determine a virtual object. Ralston discloses that the information stored in the database includes position information and information related to virtual objects and not to real-world objects. Indeed, the Ralston database does not include information associated with real-world visual markers or locations of real-world markers, as recited by claim 10. Therefore, the combination of Beller, Ohshima, and Ralston, does not disclose or suggest a database having predefined associations between unique identifiers and "locations of the visual markers," as recited by claim 10. Accordingly, Applicant respectfully submits that claim 10 would not have been obvious to one skilled in the art in light of the Beller, Ohshima and Ralston combination.

Independent claim 14

Independent claim 14 is directed to a system for viewing data. The system includes, a wearable computer system having logic that is capable of, *inter alia*, 1) "detecting one or more visual markers within the field of view of the camera," 2) "determining an identifier associated with the marker in response to detecting one or more visual markers," and 3) "wirelessly transmitting the identifier to a computer network and wirelessly receiving predefined data associated with the identifier from the computer network." The system also includes memory storage "containing the information associated with the markers."

The system disclosed in the Beller and Ralston combination works differently than required by the system of claim 14. In Beller, a remote human operator monitors the user's view through a remotely-transmitted video image. The human operator adds marks to the video image, which is retransmitted back to the user of the head-mounted display. (col. 2, ll. 16-22). The user of the head-mounted display realigns and maintains his head at the realigned position coinciding with the marked up image. Therefore, in Beller, a human operator detects an object and marks up the image and a human user realigns or maintains his head position to coincide with the image marked up by the remote human operator. In Beller, human operators and users manually see, detect and identify objects in an image of that object.

In Ralston, a database stores position and attribute information. The position and head orientation of a user is determined. The database is accessed using the determined

position and head orientation to determine a virtual image to display to the user. The computer-generated image is displayed to the user.

Applicant submits that to one skilled in the art, the combination of Beller and Ralston does not lead to the invention of claim 14, but instead, relates to transmitting a video image from a user to a remote operator where the image is marked up and retransmitted back to the user. The user of the head-mounted display realigns and maintains his head at the realigned position coinciding with the marked up image. The position and head orientation of the user may be determined to determine a virtual object to display to the user.

The combination of Beller and Ralston do not disclose or suggest the limitations of Claim 14. First, the combination of Beller and Ralston does not disclose logic for detecting the visual markers. In particular, there is no reference or suggestion in the combination of Beller and Ralston to detect one or more visual markers within the field of view of the camera. The rejection of claim 14 is premised on this step being performed by an operator aligning an image of a real-world object with a virtual marker displayed on the image. Claim 14 clearly calls for logic for detecting the markers. Accordingly, the combination of Beller and Ralston is clearly different from amended claim 14.

Second, the Beller and Ralston combination does not disclose or suggest memory storage "containing the information associated with the markers." In particular, nothing in Beller or Ralston discloses or fairly suggests a memory having information associated with any marker. Indeed, in the Beller and Ralston combination, information in a memory is

associated with a **virtual object** and **not a real-world visual marker**. Accordingly, Applicant respectfully submits that amended claim 14 would not have been obvious over Beller in view of Ralston.

Dependent claims 3-9, 11-13, 15-18 and 20-28

For similar reasons, the combination of cited combinations of Beller, Ohshima, and Ralston, and Beller and Ralston also fail to disclose the limitations of claims 3-9, 11-13, 15-18 and 20-28. As discussed above, the cited combinations do not disclose or suggest the limitations for independent claims 1, 10 and 14, and therefore, the cited combinations also do not disclose or suggest the limitations for claims 2-9 and 11-13. Accordingly, favorable consideration of claims 2-9 and 11-13 is respectfully requested.

Applicant further respectfully submits that the cited combinations of Beller, Ohshima, and Ralston, and Beller and Ralston fail to disclose or suggest the limitations of dependent claims 18, 20, 23, 24, and 25. In particular, nothing in Beller, Ohshima, or Ralston discloses or fairly suggests a database storing information associated with an operator profile, a predetermined amount of time is based on an operator profile, an employee preference and profile, or a predetermined amount of time based on an employee preference and profile. Ralston discloses a database storing positions and attributes, but does not disclose or fairly suggest that the database includes information related to an operator, an employee, or an employee preference and profile. Furthermore, Ralston does not disclose that a predetermined amount of time is based on an operator profile or an employee preference and

profile. Accordingly, claims 18, 20, 23, 24, and 25 would not have been obvious in light of the cited combinations.

New Claims 29 and 30

Claims 29 and 30 have been added. Support for the newly added claims may be found throughout the specification, and particularly at page 5.

CONCLUSION

In view of the foregoing, Applicant respectfully requests favorable consideration and allowance for all pending claims. If the examiner believes that a telephone conference would expedite allowance of the application, the examiner is invited to call the undersigned.

Respectfully submitted,

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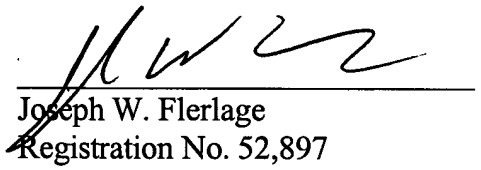

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